

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 9, line 23 to page 11, line 11 as follows:

By the above-described steps, the cells expressing SF-25 antigen on their surfaces are bound to the magnetic beads. Examination of the cancer cells bound to the magnetic beads is then carried out. It is preferred to conduct a washing step in which the magnetic beads are washed with a buffer solution and the magnetic beads are collected again by magnetic force, before the examination. The examination *per se* of the cells may be carried out by a method known for the respective cancer cells. For example, an examination by which the cells can be identified as cancer cells, such as examination of nucleic acid, pathological examination or biochemical examination is carried out. In Examples 1 and 3 below, DNAs are collected from mononuclear cells from adult T cell leukemia (ATL) patients, and the proviral HTLV-1 gene causative of ATL is detected by inverse PCR and subsequent Southern blot, thereby diagnosing ATL. A preferred example of the examination is the examination of nucleic acid by which such a pathogenic virus or a marker gene for various cancer cells is detected. Examples of such genes include HTLV-1 (ATL), Rb (retinoblastoma, lung cancer, breast cancer), p53 (colon cancer, breast cancer, lung cancer and the like), WTI (Wilms tumor), APC (colon cancer, gastric cancer), p1b (melanoma, esophagus cancer), NFI (melanoma, neuroblastoma), NF2 (meningioma, esophagus cancer), VHL (renal cancer), DPC-4 (pancreatic cancer), SMAD2 (colon cancer), PTEN (glioblastoma), PTC (dermal basal cell carcinoma), int-2/hst-1/cycD1 (head and neck cancer, esophagus cancer, bladder cancer), MDM-2 (sarcoma, brain tumor), erbB1 (polymorphic glioma, breast cancer), erbB2(neu) (breast cancer, gastric cancer, ovarian cancer), c-myc (uterine cancer, small cell carcinoma of the lung, breast cancer), N-myc (neuroblastoma, small cell carcinoma of the lung, sarcoma), H-ras (uterine cancer), K-ras (gastric cancer), c-met (gastric cancer), K-sam (gastric cancer), AKT-1, AKT-2(S/T-PK) (both of them are markers of gastric cancer and ovarian cancer), and Aurora-2(S/T-PK) (colon cancer). Other than the examination of nucleic acids, examinations of EGF receptor (breast cancer and the like), p53 protein (colon cancer, liver cancer), vascular epidermal growth factor (VEGF) (liver cancer, colon cancer and the like), TGF- β , annexin'-I and the like are exemplified. It is also preferred to search the expression of a gene such as 4F2 gene or PCD1 gene by RT-PCR, of which expression is ubiquitously increased in cancer cells (see Example 4). The nucleotide sequences of these

pathogenic virus genes and cancer marker genes or cDNAs thereof are known and are included in databases such as GenBank (~~freely available at~~ ~~<http://www.ncbi.nlm.nih.gov/Genbank/index.html>~~). Therefore, by carrying out a search using the name of the pathogenic virus or the cancer marker as the keyword, the nucleotide sequence thereof may easily be found. If the nucleotide sequence of the pathogenic virus gene or the cancer marker gene or the cDNA thereof is known, whether the cells contain the pathogenic virus gene or the cancer marker gene or not, or the gene is expressed in the cells or not may be determined by, for example, subjecting the gene or cDNA to a well-known nucleic acid-amplification method such as PCR for amplifying an optional region in the gene or cDNA, and determining whether amplification occurs or not.